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## **Sanitary Conditions of Housing Units and The Socio-Economic Characteristics of Residents of Ikere-Ekiti, Nigeria**

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### **ABSTRACT**

This research work examined sanitary conditions of housing units and the socio-economic characteristics of residents of Ikere-Ekiti, Nigeria. Data types and sources for this study were derived from the administration of eight hundred and eighty (880) questionnaires on categories of respondents in the study area. Results from this study revealed that, the cost of housing construction and development is considerably high, coupled with high cost of maintenance and effluents discharge from sanitary facilities. This study therefore concluded and recommends that, preponderances of non-conforming buildings, particularly residential and insanitary environment should be put in-check, through a very strict and proactive enforcement of development control edits and sanitary laws.

**Keywords:** Characteristics, Conditions, Housing-Units, Sanitary and Socio-Economic Activities

#### **1.1. Introduction and Background to the Study**

Housing is a reflection of the cultural, social and economic values of a society. It is in particular, a cultural phenomenon, which finds expression in a people's ability to meet their needs of shelter in the context of their communities (Ogundiran and Adedeji, 2018). The role

of culture in housing is predominant despite the moderating effect of economics, climate, and technology known to them. Housing, a subset of traditional architecture, evolves from the culture of a community in accordance with the lifestyle of its people, the materials of construction available, and technical possibilities open to them (Gardi, 1973; Adedeji, 2010).

The need for housing is of interest to mankind. That is why housing is part of the UNCHS (2003) which endowed every citizen of every nation with the right to housing (shelter). The International Convention of Economic, Social and Cultural Right also endorse this as part of basic human need. The house is an economic resource providing space for the production and access to income earning opportunities.

The built environment in many developing countries particularly Nigeria is fast degenerating and the factors responsible for this can be attributed to rapid urbanization, rural-urban migration and decades of steady economic downturn, decay of urban infrastructure and poor housing quality (World Bank, 2005). Housing shortages have been recorded in both rural and urban communities of all African countries with the latter being more critical as asserted by Arayela and Taiwo (2010). The challenge of housing provision in the developing countries is quite enormous. Various efforts at addressing these problems have seen both the institutional and individual intervention in provision of residential housing (Olayemi, 2014). These shortages are unfortunately the norm rather than the exception in most of these counties despite some frantic effort at mitigating this problem (Ademiluyi, 2010). This rapid rise as a result of urbanization has made major cities to be unable to provide basic shelter for the teeming population. According to Tesfayo (2007), urbanization and demand for houses are positively correlated and the resulting increase in demand for houses are still largely unmet in most of the developing countries despite various policies and programmes to increase the housing stock (Tipple and Willis, 1999).

Studies have shown deplorable condition of urban housing in Nigeria (Onokerhoraye, 1976; Wahab et al 1990; Olotuah, 2007). The urban poor constitute the vast majority of urban dwellers and they are in a disadvantaged economic position to build for themselves and are

generally unable to make effective demand of existing housing, consequently, housing this urban population is a major thrust of sustainable urban development. In view of the implications of the increasing urban population for sustainable development in low and middle income countries, the 2002 Johannesburg's World Summit on Sustainable Development (WSSD) called on all governments to address the overwhelming challenge of provision of urban basic services especially decent houses, water and sanitation for the teeming people in slums where the quality of life is appalling. While continents like Europe and the Americas have stabilized their population growth and the economy to a large extent, most countries in Africa, Asia and Latin America have in the last few decades not been able to deliver on their promises of alleviating the precarious state of living environment of their citizens (UN-HABITAT, 2003).

### **1.2. Statement of the Research Problem**

Providing housing for a significant proportion of the Nigerian population has remain a mirage by prospective government, virtually on all occasions, government's attempt at dealing with the issue of housing Nigerians has failed especially through engaging in direct construction of houses. Many of these projects through direct constructions were never completed and have only littered the country with numerous uncompleted housing estates. Even if the houses on these estates were completed, it would quickly be seen that they could hardly house more than a fraction of those needing accommodation (Mabogunje, 2004). However, the housing problems is not lack of policies and programmes, successive governments formulated programmes and made huge budgetary allocation both at the state and federal level. The problems lie with execution, implementation and continuity of intention, coupled with an unstable political environment (Agbola, 1989).

The totality of housing is more than shelter as it embraces all social services, functions as well as the physical protection it offers man and his domestic companion against cultural hazards in his physical environment, a great importance is therefore ascribed to the role it plays in engendering human comfort by both nature and society. This is why Eldredge (1967) concludes that housing represent a bundle of goods and services which facilitate and enhance good living, and a key to neighborhood quality and preservation. As more towns and cities grows, there is a need to address one of the more important challenges facing the country which the poor quality of housing within any neighborhood should be such that satisfies minimum

health standards and good living standard, but should also be affordable to all categories of households (Okewole and Aribigbola, 2006).

Adedokun (2006) stressed that the poor and the middle income group are the immediate sufferers of the housing problem while Ogunseni and Abiola-Falemu (2006) categorically affirmed that about 70 percent of the Nigerian population are very poor and are either homeless or live in shanties and batchers. Some 40 percent spend about 35 percent of their income on rent, which is about 16 percent higher than the recommendation of United Nations of 20 percent. According to the UN Commissions of Sustainable Development (2004), serious challenges exist in the urban settlements ranging from scarcity of public services, marked social inequalities, inhabitable conditions, congestion, social and spatial segregation, poverty, unemployment, environmental degradations, pollution and vulnerability to technological and natural disasters. Rapid urbanization has consequently outpaced the ability of government at all levels to provide adequate shelter and basic amenities for the urban poor. The high level of poverty in most urban household places the available housing stock out of the economic reach of the citizens. Many households have resulted into constructing makeshift dwelling with all sorts of refuse material in illegally occupied land, hence, the development of slums and squatters.

Lanrewaju (2012) identifies the problem of housing in Nigeria as inadequate basic infrastructural amenities, substandard housing, overcrowding, poor ventilation in homes and work place, and non-compliance with building bye-laws and regulations. She also observed that poor housing quality has serious adverse effects on the environment and health of city residents. In the light of this, the urban people bear great burdens of urban environmental risk because of the situation in which they are forced to live whether in sprawling squatter settlement of cities or in the blighted urban centre such as in Ikere Ekiti Local Government Area of Ekiti State. Ajala (2005) submitted that in most of the developing countries, investment in infrastructure including housing has failed to keep up with the growth in population with Ikere Ekiti Local Government Area and other cities in Nigeria sharing in this experience as available data revealed that their population has been growing at an alarming rate, thus ranking them among the fastest growing in the world (Oladunjoye, 2005; World Bank, 2008; Jiboye, 2009 and Oduwaye, 2009).

Mabogunje (2007) in a recent study of housing in Nigeria put existing stock at 23 percent per 1000 inhabitant with housing deficit put at 15million houses while 12trillion will be required to finance the deficit, about four times the annual national budget of Nigeria (FHA,2007). Consequently, quite a number of problems are associated with poverty and housing condition in Ikere Ekiti Local Government Area of Ekiti State which have become deplorable and constituted total nuisance to the environment. Some of these include

environmental deterioration, housing deterioration, squatter housing, facilities overload, slum creation, overcrowding, spatial disorderliness among others. Poverty create slum and changes the pattern of houses which causes the appearance of informal activities, which in turn change the land use pattern of the community (Aluko, 2012). These changes in land use do have impact on physical structures, socioeconomic values, infrastructural facilities and services and even the psyche of the residents of the area which on the long-run will have telling effect on productivity viz -à-vis living conditions and housing quality.

Hence, it is pertinent for this research work to be carried out which tend to bridge the gap in knowledge, complement existing literature in this regard and also provide a different approach by which the living conditions of residents on both rural and urban communities, regionally, nationally and globally can be bettered through the provision of good quality housing units thus guaranteeing improved living conditions at large.

### **1.3. Aim and Objectives of the Study**

The aim of this study is to evaluate the sanitary conditions of housing units and the socio-economic characteristics of residents in the study area.

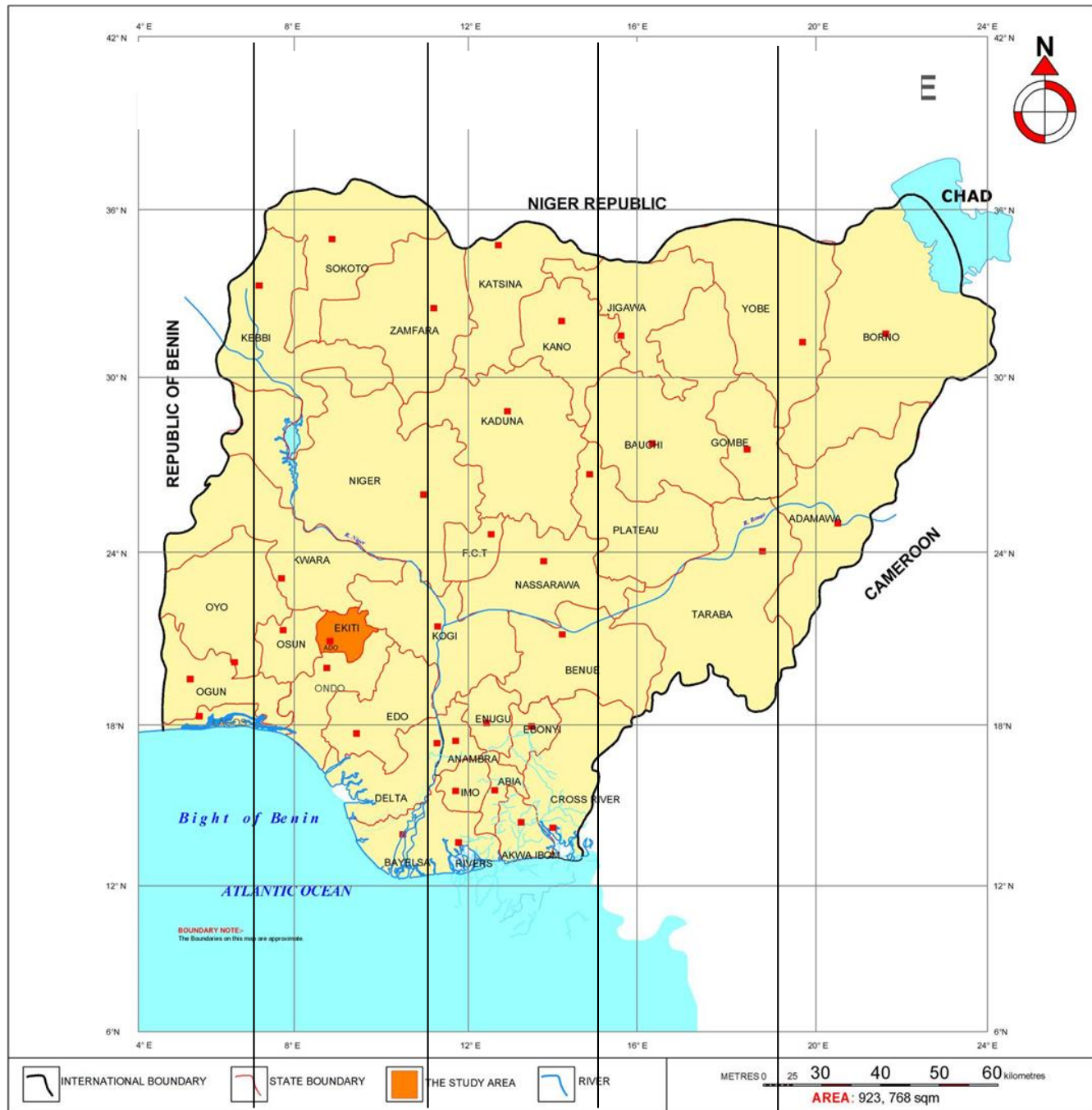
However, the specific objectives are to:

- (i) identify the challenges of housing quality and living conditions of people in the study area;
- (ii) examine the relationship between housing quality and living conditions of the people in the study area;
- (iii) evaluate the relationship between the living conditions and the socio-economic characteristics of the people in the study area;
- (iv) assess the best possible solutions or remedial measures to the challenges of sanitary conditions of housing units and the socio-economic characteristics of residents in the study area.

### **1.4. The Study Area**

#### **1.4.1 Location**

Ikere Ekiti, the headquarters of Ikere Local Government Area of Ekiti State is located between latitudes  $7^{\circ}30^1$  and  $7^{\circ}35^1$  North of the Equator and longitudes  $5^{\circ}10^1$  and  $5^{\circ}15^1$  East of the Greenwich Meridian. Ikere-Ekiti covers a total land area of 346.5 kilometers square. The town lies within the Precambrian crystalline basement complex rock of Southwestern Nigeria (Aturamu, 2012).



**Figure 1:** Ekiti State within Nigeria

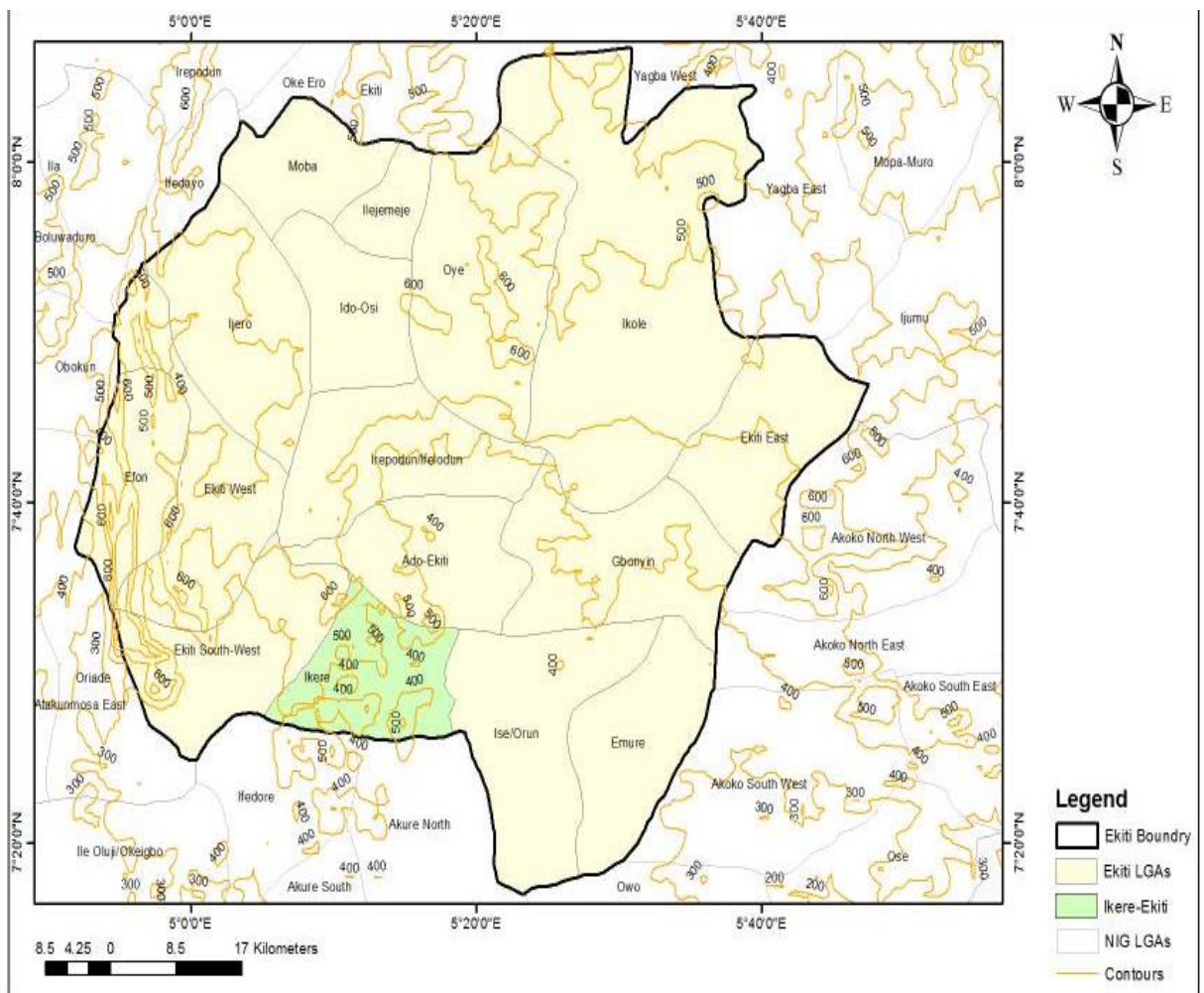
**Source:** GIS Spatial Nigeria Limited (2022)

### 1.4.2 Accessibility

Ikere Ekiti is situated in the southern end of Ekiti State, bounded in the north by Ado-Ekiti Local Government Area, in the west by Ekiti South West Local Government Area, in the east by Ise-Orun Local Government Area and in the south by Ondo State. Ikere Ekiti marks the southern boundary between Ekiti State and Ondo State.

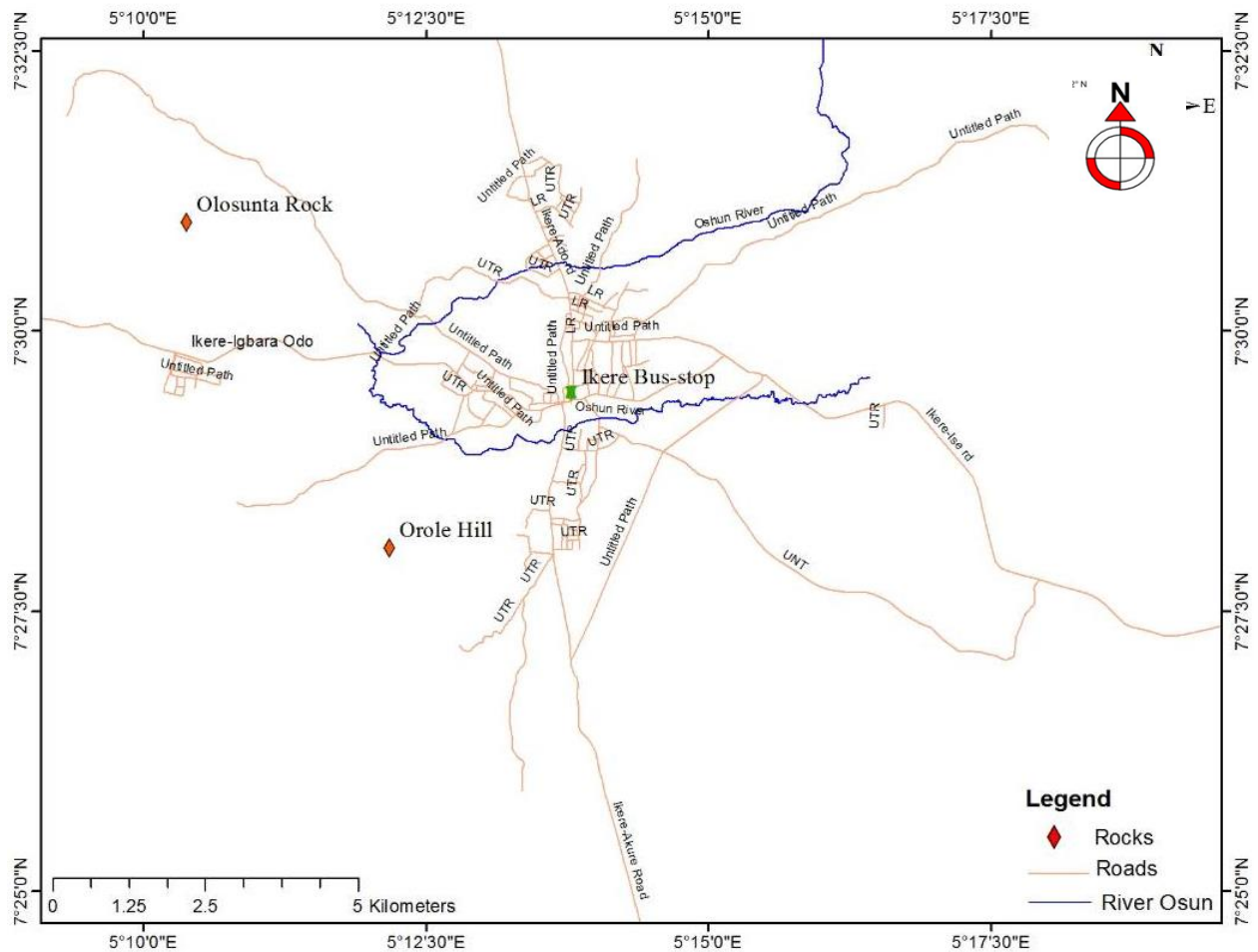
### 1.4.3 Settlement Pattern

The settlement pattern of the study area followed the linear pattern as buildings advanced through transport routes. Houses are built along the roads and they keep extending from the interiors to the exteriors. The type and nature of the houses differ according to location as old houses are located around the town centre while newer and high class buildings are located near the transport routes and at the outskirts of the town.



**Figure 2:** Ikeri Ekiti Local Government Area within Ekiti State

**Source:** GIS Spatial Nigeria Limited (2022)



**Figure 3: Relief and Geographical Landscape**

The landscape and the topography of the area are hilly and mountainous with several elongated outcrops of igneous and metamorphic complexes. The *Olosunta* and *Orole* hills, both steep-sided hills, are the two major hills in the town, located at the Northern and Southern parts of the town respectively.

**1.4.4. Historical Background of Ikere-Ekiti**

Ikere-Ekiti like other Yoruba towns and cities originated from Ile-Ife. The first family to reside in the town was the Aladeselu’s who were farmers and had their settlement in the centre of the present city (around Odo-Oja to Post Office area).

**1.4.5 Economic Activities**



Ikere-Ekiti used to be major collecting point for cocoa, it also serves as an agricultural trade centre and some of the major agricultural produces commonly grown include yam, cassava, rice, maize, palm-oil and kernels, okra, pumpkins among others.

## **1.5 Literature Review and Conceptual Framework**

The housing condition of the country is a pointer to the health motivation, economic well-being and the social circumstances of her citizens. Housing touches on the life of an individual as it provides the space for protection, privacy, economic activities, recreation and livelihood (Ajayi and Omole, 2012). It is worth mentioning that Nigeria with a population of about 167million people from about 250 ethnic groups (National Population Commission, Nigeria, 2011) still suffers from inadequate housing provision since independence in 1960. Adequate housing provision has since the early 1970's consequently engages the attention of the country for a number of reasons highlighted above. Nigeria is not left in this problem alone; other developing countries are also involved. Ojo et al. (2006) submitted that shelter has been acknowledged as one of the basic needs of humanity. It was therefore not surprising when the United Nations launched an aggressive campaign through the government of Nations on the need to provide shelter for all.

### **1.5.1. Concept of Sustainability in Housing Development**

In general terms, sustainability refers to the capacity of socio-ecologic systems to persist unimpaired into the future (Raskin Chadwick, Jackson and Leach; 1996). The term "Sustainable Development" has been given some prominence by the World Commission on Environment and Development (WCED) in its 1987 report titled, "Our Common Future". The Commission defined it as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs". One fundamental premise for sustainable development is the recognition that environment and development is not exclusive of one another, but is complementary and inter-dependent and in the long run mutually reinforcing (Oriola, 2009). There is increasing global attention on the environment in

the development discourse and environmental concerns are now regarded as critical factors in socio-economic development (Pasqual and Souto, 2003; Haque, 2000).

This complexity explains the difficulty in operationalizing the concept; and in terms of definition, Sustainable Development stands on three pillars adopted by the 2002 World Summit Sustainable Development (WSSD). These pillars include social development, economic development and environmental protection. The primary objective of sustainable development is to reduce absolute poverty as adopted and contained in Agenda 21 and produce a global programme of action for sustainable development in the 21<sup>st</sup> century. Thus, Agenda 21 stresses the importance of good governance through effective partnerships among stakeholders in improving social, economic and environmental quality in the urban areas (Omoniyi and Jiboye, 2009).

Urban infrastructure and housing are interwoven without infrastructures, housing cannot be sustainable and hence should be treated integrally (Otegbulu and Adewunmi, 2008). An ideal urban neighbourhood should be provided with good roads, drainage, networks, electricity and portable water supply, good waste management system and security. The condition of these services in Nigeria's urban neighbourhoods contradicts the principle of sustainability in urban housing. A sustainable housing development would not only have environment friendly and energy efficient buildings, it would also have access to employment, schools, shops, places of entertainment and relaxation, primary health-care, and it would be accessible by public transport. It would also be mixed in terms of tenures, income and age groups. Residential development which is designed to contribute to sustainability will provide not only warm, dry and healthy homes and reduce the need to travel, but also a setting which enhance quality of life from generations to generations and which integrates people into society at large. It will maximise the effectiveness of housing investment and be crucial to the building of cohesive communities.

## **1.6 Research Methods**

### **Research Design**

This study employed descriptive survey design in gathering data. In this regard, questionnaire administration was used in data collection. Considering the cost and time, the total population cannot be sampled, thus, the purposive sampling technique was employed in eliciting the information from the study area.

### **Types and Sources of Data**

The data used in the study can be categorized into two. These are the primary and secondary data. However, for many reasons and contrast with studies from advanced economies that make use of census data, this study relied absolutely on data from field survey.

### **Population of the Study**

According to the National Population Commission census report (NPC, 2011), the population projection for Ikere-Ekiti, which is the study area, has a total population of 147,355 people. Based on the population projection, 5% of the population was sampled in the study area, thus, making the number of respondents (target population) to be 880 (Eight Hundred and Eighty) in all.

### **Research Instrument**

The basic research instrument of data collection for the study is the questionnaire which is a tool for gathering information that is not available from published sources. The study used a well-structured questionnaire to elicit the information needed for the study.

### **Validation of Research Instrument**

Thus, to ensure validity of the questionnaire, a comprehensive pilot testing was conducted prior to the fieldwork proper in order to achieve the desired result and also, to ensure that the final questionnaire addresses the set out objectives of the treatise and include all variables of interest for a robust analysis.

### **Sampling Procedure and Techniques**

The purposive sampling technique was employed in the acquisition of information from the study area. Sampling is simply the technique of selecting a representative part of a population of study or number of observations for the purpose of determining the characteristics of the whole population.

### **Questionnaire Structure**

The questionnaire was divided into two sections to address the objectives set out in chapter two. Questions on the socio-economic characteristics of respondents such as age, sex, marital status, employment, religion, income and wards were contained in the first section of the questionnaire, while the second section contain questions on the housing quality (physical structure of buildings) quality of the facilities in the house, accessibility, aesthetics, toilets, kitchen, bathroom, electricity, refuse disposal and water supply.

### **Methods of Data Collection**

In order to achieve an effective and meaningful research work, the study relied absolutely on primary data from the field survey and complemented it with secondary sources such as internet, like textbooks, published and unpublished literatures, newspaper and others.

### **Methods of Data Analysis**

The data obtained on the field were analyzed using descriptive and inferential statistics techniques. Frequency distribution and percentage, correlation, Analysis of Variance (ANOVA) and the student's *t*-test were used to analyze the data collected. Specifically, the Statistical Packages for the Social Sciences (SPSS) Version 23 and Microsoft Excel software were used to generate tables and graphs from the data.

## **1.7 Results and Discussions**

### **Average Monthly Income of the Respondents**

The next socioeconomic variable considered in the study area is income of household heads. As presented in Table 4.7 and plotted in Figure 4.6, 44.0 percent of the respondents earn below ₦10,000 on a monthly basis, 21.6 percent earn ₦10,001 and ₦20,000, 12.3 percent earn ₦20,001 and ₦30,000, 15.7 percent earn ₦30,001 and ₦40,000 while 6.4 percent earn

₦40,001 and above. Going by the distributional pattern of income in the study area, it appears that majority of the respondents were poorly remunerated, consequently, affordability of good quality housing, proper maintenance of existing stocks, adequate feeding, creation of drainage and other necessities of life might be very difficult if not impossible for most residents in this area.

**Table 1: Average Monthly Income of the Respondents**

Average Monthly Income	Frequency	Percent
Below ₦ 10,000	282	44.1%
₦ 10,001 - ₦ 20,000	183	21.6%
₦ 20,001 - ₦ 30,000	142	12.3%
₦ 30,001 - ₦ 40,000	157	15.7%
₦ 40,001 and above	116	6.4%
Total	880	100.0%

Source: Fieldwork, 2022

### Building Materials

Captured in Table 2 is the materials used for walls of the buildings within the study area. 12.3 percent of the respondents stated that their houses were built with unplastered mud, 31.3 percent mud with cement plaster, 36.1 percent built with cement block, 15.5 percent built using concrete block while very few of the houses, 4.8 percent, were built with planks. This suggests that a considerable portion of the population in the study area live within low quality housing units with very poor sanitary and building structures. Neighbourhood where mud houses were found during the survey had existed as rural settlements in which the most common and available building materials was mud because it is relatively cheaper and readily available for construction. It is pertinent to note here that absence of painting and plastering of external wall allows for fungal stains or mould occurrence on wall surfaces hence making the wall susceptible to damp penetration. Furthermore, wall finishing generally beautifies a house,

as such, the lack of external finishes and all subsequent defacing leads to poor aesthetics within the environment.

**Table 2: Building Materials**

<b>Building Materials</b>	<b>Frequency</b>	<b>Percent</b>
Unplastered Mud	142	12.3%
Mud with cement Plaster	226	31.4%
Cement Block	247	36.1%
Concrete block	156	15.5%
Plank	109	4.8%
<b>Total</b>	<b>880</b>	<b>100.0%</b>

**Source: Fieldwork, 2018**

**Location of Kitchen**

As indicated in Table 3 below, 55.9 percent have their kitchen facilities indoor while 44.1 percent outdoor. The connotation of this is that an average of kitchen facilities in the study area was haphazardly located and as such contravenes proper planning of housing facilities, consequently, living conditions cannot be regarded as standard with this type of arrangement.

**Table 3: Location of Kitchen**

<b>Location of Kitchen Facility</b>	<b>Frequency</b>	<b>Percent</b>
Indoor	466	55.9%
Outdoor	414	44.1%
<b>Total</b>	<b>880</b>	<b>100.0%</b>

**Source: Fieldwork, 2022**

### Number of Household Using Kitchen Facility

The result of data analysis on Table 4 signifies the number of households or families sharing the same kitchen facility. 35.7 percent of the respondents disclosed that one household use their kitchen facility, 19.1 percent for two households, 14.1 percent for three households, 9.2 percent for four households and 13.6 percent for five households and 8.3 percent for six and above household. This implies that a sizable portion of the study area still make use of kitchen facilities with other households in which the use of firewood and charcoal is the preferred source of energy. Also, many of the buildings have their kitchens located at the backyard usually in an unhygienic environment, some right inside their rooms and others make use of the common passage available in their buildings.

**Table 4.: Number of Household Using Kitchen Facility**

Number of Household using Kitchen	Frequency	Percent
1	314	35.7%
2	168	19.1%
3	124	14.1%
4	81	9.2%
5	120	13.6%
6 and above	73	8.3%
Total	880	100.0%

Source: Fieldwork, 2022

### Sources of Drinking Water

The different source of drinking water available to the respondents in the study area is presented in Table 5. The table indicates that 11.8 percent enjoy tap water, 59.3 percent source their water from underground well-water, 19.3 percent borehole, 4.8 percent source their water from streams and surrounding rivers while others with 4.8 percent has no source of water supply in their houses or have to go to neighbouring households to meet their water needs. The

implication of this is that most people in the study area have to generate their own source of water supply usually by digging underground well-water, some of which have shallow depth. This poses some problems because the water gotten from this source is usually not treated before use. As indicated above, only few, about 11.8 percent enjoy the public water provided by the government which is not even regular. Sequel to this situation, the existing water supply system does not guarantee quality water supply in the area, hence, the people are at greater risk of contracting acute water borne diseases.

**Table 5: Sources of Drinking Water**

Source of Drinking Water	Frequency	Percent
Tap	140	11.8%
Well	349	59.3%
Borehole	173	19.3%
Stream/River	109	4.8%
Others	109	4.8%
Total	880	100.0%

Source: Fieldwork, 2022

**Respondents Perception on Sharing of Toilet Facility**

According to Table 6 below, 54.3 percent of the respondents reported that they share toilet facilities in their houses while 45.7 percent do not share toilet facilities. In light of this distributional pattern, it is revealing that the availability of toilet facilities in houses within the study area were grossly inadequate.

**Table 6: Respondents Perception on Sharing of Toilet Facility**

Respondents Perception on Sharing of Toilet Facility	Frequency	Percent
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Yes	459	54.3%
No	421	45.5%
Total	880	100.0%

**Source: Fieldwork, 2022**

## 1.8. Conclusion

Thus, the study has provided solid and penetrating analyses to explain the housing quality and living conditions of residents in Ikere-Ekiti Local Government Area. Further analysis of result using correlation coefficient revealed that significant relationship exists among most pairs of variables identified as quality indicators for the study area. There is also a significant relationship between housing quality and living condition which shows that they have significant influence on each other and vice versa.

## 1.9. Recommendations

- (i) Since empirical analyses in the study have revealed that housing quality and living conditions reflect more of neighbourhood characteristics, it is thus recommended that planner should endeavour to seek for spatial equities in infrastructural facilities distribution within Ekiti State and Nigeria in general.
- (ii) The government should encourage local industries producing construction and building materials in all possible ways such as through tax rebate, low rate and the creation of special sources of fund for building material producers. In another view, specialization on building materials at entrepreneurship scale should be facilitated to generate employment opportunities for the teeming unemployed youths.
- (iii) The preponderances of non-conforming buildings, particularly residential and insanitary environment should be put in check through a very strict and proactive enforcement of development control edicts and sanitary laws.

- (iv) Residents should be encouraged through some policy shift in housing finance like the removal of unnecessary and stringent conditions, extending mortgage funds to the less privileged and urban poor and among others which may encourage them to build more dwellings in the suburb so as to reduce competition for poor housing within the city.

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